## **Contents**

Alberte, R. S.: see Dennison, W. C. et al., 469

Aller, R. C.: see Dennison, W. C. et al., 469

Al-Mallah, M.: see Goutx, M. M. et al., 111

Amade, P.; Charroin, C.; Baby, C.; Vacelet, J.: Antimicrobial activities of marine sponges from the Mediterranean Sea 271

Ambler, J. W.; Miller, C. B.: Vertical habitat-partitioning by copepodites and adults of subtropical oceanic copepods 561

Ameyaw-Akumfi, C.: see Antwi, D. A., 259

Anderson, S. L.; Burris, J. E.: Role of glutamine synthetase in ammonia assimilation by symbiotic marine dinoflagellates (zoo-xanthellae) 451

Aneer, G.: High natural mortality of Baltic herring (Clupea harengus) eggs caused by algal exudates? 163

Anger, K.; Spindler, K.-D.: Energetics, moult cycle and ecdysteroid titers in spider crab (*Hyas araneus*) larvae starved after the D<sub>0</sub> threshold 367

Antwi, D. A.; Ameyaw-Akumfi, C.: Migrational orientation in two species of littoral gastropods (*Littorina angulifera* and *Nerita* senegalensis) 259

Arakawa, O.: see Noguchi, T. et al., 625

Axiak, V.; George, J. J.: Effects of exposure to petroleum hydrocarbons on the gill functions and ciliary activities of a marine bivalve 241

Ayukai, T.: Discriminate feeding of the calanoid copepod Acartia clausi in mixtures of phytoplankton and inert particles 579

Baby, C.: see Amade, P. et al., 271

Batty, R. S.: Effect of light intensity on activity and food-searching of larval herring, Clupea harengus: a laboratory study 323

Beeler SooHoo, J.: see Palmisano, A. C. et al., 299

Bertrand, J. C.: see Goutx, M. M. et al., 111

Blank, R. J.: Cell architecture of the dinoflagellate Symbiodinium sp. inhabiting the Hawaiian stony coral Montipora verrucosa 143

Blanquet, R. S.; Phelan, M. A.: An unusual blue mesogleal protein from the mangrove jellyfish Cassiopea xamachana 423

Bohrer, R. N.: see Hirche, H.-J., 11

Bourget, E.: see Fréchette, M., 231

Broughton, W. J.: see Williams, W. M. et al., 531

Burris, J. E.: see Anderson, S. L., 451

Cameron, A. M.: see Gunthorpe, L., 39

Camm, J.-P.: see Johnston, I. A., 183 Caputi, N.: see Loneragan, N. R. et al., 631

Charroin, C.: see Amade, P. et al., 271

Clemmesen, B.; Jørgensen, C. B.: Energetic costs and efficiencies of ciliary filter feeding 445

Cleveland, J. S.; Perry, M. J.: Quantum yield, relative specific absorption and fluorescence in nitrogen-limited Chaetoceros gracilis 489

Degobbis, D.: see Ivančić, I., 117

Deguchi, Y.: see Noguchi, T. et al., 625

Dennison, W. C.; Aller, R. C.; Alberte, R. S.: Sediment ammonium availability and eelgrass (Zostera marina) growth 469

De Ridder, C.; Jangoux, M.; De Vos, L.: Frontal ambulacral and peribuccal areas of the spatangoid echinoid *Echinocardium cor*datum (Echinodermata): a functional entity in feeding mechanism 613

De Vos, L.: see De Ridder, C. et al., 613

Doering, P. H.; Kelly, J. R.; Oviatt, C. A.; Sowers, T.: Effect of the hard clam *Mercenaria mercenaria* on benthic fluxes of inorganic nutrients and gases 377 Edwards, C. A.; Skibinski, D. O. F.: Genetic variation of mitochondrial DNA in mussel (*Mytilus edulis* and *M. galloprovincialis*) populations from South West England and South Wales 547
Erez, J: see Kuile, B. ter, 499

Farrar, S. V.: see Viarengo, A. et al., 251

Fenaux, R.: see Gorsky, G. et al., 191

Fitt, W. K.; Hofmann, D. K.; Wolk, M.; Rahat, M.: Requirement of exogenous inducers for metamorphosis of axenic larvae and buds of *Cassiopea andromeda* (Cnidaria: Scyphozoa) 415

Florence, T. M.: see Stauber, J. L., 511

Forward, R. B., Jr.: Comparative study of crustacean larval photoresponses 589

Fréchette, M.; Bourget, E.: Significance of small-scale spatio-temporal heterogeneity in phytoplankton abundance for energy flow in *Mytilus edulis* 231

Gaudy, R.; Pagano, M.: Biologie d'un copépode des mares temporaires du littoral méditerranéen français: Eurytemora velox. III. Reproduction. [Biology of a copepod of the temporary lakes of the French Mediterranean littoral: Eurytemora velox. III. Reproduction] 335

George, J. J.: see Axiak, V., 241

Gorsky, G.; Palazzoli, I.; Fenaux, R.: Influence of temperature changes on oxygen uptake and ammonia and phosphate excretion, in relation to body size and weight, in *Oikopleura dioica* (Appendicularia) 191

Gotelli, N. J.: Spatial and temporal patterns of reproduction, larval settlement, and recruitment of the compound ascidian Aplidium

stellatum 4

Goutx, M. M.; Al-Mallah, M.; Bertrand, J. C.: Effects of 9-10 dihydroanthracene and its biodegradation products on the marine diatom *Phaeodactylum tricornutum* 111

 Gowing, M. M.: see Wishner, K. F., 357
Gunthorpe, L.; Cameron, A. M.: Bioactive properties of extracts from Australian dorid nudibranchs 39

Haddon, M.; Wear, R. G.; Packer, H. A.: Depth and density of burial by the bivalve *Paphies ventricosa* as refuges from predation by the crab *Ovalipes catharus* 25

Hargrave, B. T.: see Sainte-Marie, B., 431

Harrison, P. J.: see Price, N. M., 307

Harrison, P. J.: see Thomas, T. E. et al., 293

Hashimoto, K.: see Noguchi, T. et al., 625

Hill, B. J.: see Skinner, D. G., 211

Hirche, H.-J.: Temperature and plankton. II. Effect on respiration and swimming activity in copepods from the Greenland Sea 347

Hirche, H.-J.; Bohrer, R. N.: Reproduction of the Arctic copepod Calanus glacialis in Fram Strait 11

Hjelmeland, K.: see Pedersen, B. H. et al., 171

Hofmann, D. K.: see Fitt, W. K. et al., 415

Hopkinson, C. S., Jr.: Nutrient regeneration in shallow-water sediments of the estuarine plume region of the nearshore Georgia Bight, USA 127

Hoppe, W. F.; Reichert, M. J. M.: Predictable annual mass release of gametes by the coral reef sponge *Neofibularia nolitangere* (Porifera: Demospongiae) 277

Hunter, T.: see Kinzie, R. A., III, 95

Huntley, M. E.: see Sykes, P. F., 19

Huntsman, S. A.: see Sunda, W. G. et al., 203

Hwang, D. F.: see Noguchi, T. et al., 625

Hwang, P. P.: Tolerance and ultrastructural responses of branchial chloride cells to salinity changes in the euryhaline teleost *Oreo*chromis mossambicus 643 Hylleberg, J.; Siegismund, H. R.: Niche overlap in mud snails (Hydrobiidae): freezing tolerance 403

Hylleberg, J.: see Siegismund, H. R., 395

Imai, I.; Itoh, K.: Annual life cycle of Chattonella spp., causative flagellates of noxious red tides in the Inland Sea of Japan 287 Innes, D. J.: Genetic structure of asexually reproducing Enteromorpha linza (Ulvales: Chlorophyta) in Long Island Sound

Itoh, K.: see Imai, I., 287

Ivančić, I.; Degobbis, D.: Mechanisms of production and fate of organic phosphorus in the northern Adriatic Sea 117

James, A.: see Nicol, S. et al., 7

Jangoux, M.: see De Ridder, C. et al., 613

Johnston, I. A.; Camm, J.-P.: Muscle structure and differentiation in pelagic and demersal stages of the Antarctic teleost Notothenia neglecta 183

Jones, D. S.: see Romanek, C. S. et al., 385

Jørgensen, C. B.: see Clemmesen, B., 445

Kelly, J. R.: see Doering, P. H. et al., 377

Kinzie, R. A., III; Hunter, T.: Effect of light quality on photosynthesis of the reef coral Montipora verrucosa 95

Krantz, D. E.: see Romanek, C. S. et al., 385

Kuile, B. ter; Erez, J.: Uptake of inorganic carbon and internal carbon cycling in symbiont-bearing benthonic foraminifera

Kurelec, B.: Comment on: D. R. Livingstone's critique (Mar. Biol. 94, 319-320, 1987) of the paper "Metabolic fate of aromatic amines in the mussel Mytilus galloprovincialis" 321

Lenanton, R. C. J.: see Loneragan, N. R. et al., 631

Lewis, F. G., III: Crustacean epifauna of seagrass and macroalgae

in Apalachee Bay, Florida, USA 219

Livingstone, D. R.: Comment on: "Metabolic fate of aromatic amines in the mussel Mytilus galloprovincialis" by B. Kurelec et al. (Mar. Biol. 91, 523-527, 1986) 319

Loneragan, N. R.; Potter, I. C.; Lenanton, R. C. J.; Caputi, N.: Influence of environmental variables on the fish fauna of the deeper waters of a large Australian estuary 631

Mancinelli, G.: see Viarengo, A. et al., 251

Marliave, J. B.: see Purcell, J. E. et al., 157

Martindale, M. Q.: Larval reproduction in the ctenophore Mnemiopsis mccradyi (order Lobata) 409

Mazzucotelli, A.: see Viarengo, A. et al., 251

McClatchie, S.: Experimental test of an allometric method for estimating potential copepod production 597

McClintock, J. B.: Investigation of the relationship between invertebrate predation and biochemical composition, energy content, spicule armament and toxicity of benthic sponges at McMurdo Sound, Antarctica 479

Miller, C. B.: see Ambler, J. W., 561

Moore, M. N.: see Viarengo, A. et al., 251

Nicol, S.; James, A.; Pitcher, G.: A first record of daytime surface swarming by Euphausia lucens in the Southern Benguela region

Nilssen, E. M.: see Pedersen, B. H. et al., 171

Noguchi, T.; Hwang, D. F.; Arakawa, O.; Sugita, H.; Deguchi, Y.; Shida, Y.; Hashimoto, K.: Vibrio alginolyticus, a tetrodotoxinproducing bacterium, in the intestines of the fish Fugu vermicularis vermicularis 625

Olivar, M. P.: Larval development and spawning of Diaphus hudsoni in the Benguela Current region 605

Oliver, J. K.; Willis, B. L.: Coral-spawn slicks in the Great Barrier Reef: preliminary observations 521

Oviatt, C. A.: see Doering, P. H. et al., 377

Packer, H. A.: see Haddon, M. et al., 25 Pagano, M.: see Gaudy, R., 335

Palazzoli, I.: see Gorsky, G. et al., 191

Palmisano, A. C.; Beeler SooHoo, J.; Sullivan, C. W.: Effects of four environmental variables on photosynthesis-irradiance relationships in Antarctic sea-ice microalgae 299

Pedersen, B. H.; Nilssen, E. M.; Hjelmeland, K.: Variations in the content of trypsin and trypsinogen in larval herring (Clupea harengus) digesting copepod nauplii 171

Pepin, P.: see Runge, J. A. et al., 329 Perry, M. J.: see Cleveland, J. S., 489

Phelan, M. A.: see Blanquet, R. S., 423

Pipe, R. K.: see Viarengo, A. et al., 251

Pitcher, G.: see Nicol, S. et al.,

Potter, I. C.: see Loneragan, N. R. et al., 631

Potts, D. C.: see Smith, B. L., 537

Price, N. M.; Harrison, P. J.: Comparison of methods for the analysis of dissolved urea in seawater 307

Purcell, J. E.; Siferd, T. D.; Marliave, J. B.: Vulnerability of larval herring (Chipea harengus pallasi) to capture by the jellyfish Aequorea victoria 157

Radtke, R.: see Romanek, C. S. et al.,

Rahat, M.: see Fitt, W. K. et al., 415

Reichert, M. J. M.: see Hoppe, W. F., 277

Romanek, C. S.; Jones, D. S.; Williams, D. F.; Krantz, D. E.; Radtke, R.: Stable isotopic investigation of physiological and environmental changes recorded in shell carbonate from the giant clam Tridacna maxima 385

Runge, J. A.; Pepin, P.; Silvert, W.: Feeding behavior of the Atlantic mackerel Scomber scombrus on the hydromedusa Aglantha digitale 329

Sainte-Marie, B.; Hargrave, B. T.: Estimation of scavenger abundance and distance of attraction to bait 431

Salmon, M.: see Seiple, W. H., 1 Sander, F.: see Tomascik, T., 53, 77

Schiedek, D.; Zebe, E.: Functional and environmental anaerobiosis in the razor-clam Ensis directus (Mollusca: Bivalvia) 31

Seiple, W. H.; Salmon, M.: Reproductive, growth and life-history contrasts between two species of grapsid crabs, Sesarma cinereum and S. reticulatum 1

Shida, Y.: see Noguchi, T. et al., 625

Siegismund, H. R.; Hylleberg, J.: Dispersal-mediated coexistence of mud snails (Hydrobiidae) in an estuary 395

Siegismund, H. R.: see Hylleberg, J., 403 Siferd, T. D.: see Purcell, J. E. et al., 157

Silvert, W.: see Runge, J. A. et al., 329

Skibinski, D. O. F.: see Edwards, C. A., 547

Skinner, D. G.; Hill, B. J.: Feeding and reproductive behaviour and their effect on catchability of the spanner crab Ranina ranina

Smith, B. L.; Potts, D. C.: Clonal and solitary anemones (Anthopleura) of western North America: population genetics and systematics 537

Sowers, T.: see Doering, P. H. et al., 377

Spindler, K.-D.: see Anger, K., 367

Stauber, J. L.; Florence, T. M.: Mechanism of toxicity of ionic copper and copper complexes to algae 511

Sugita, H.: see Noguchi, T. et al., 625

Sullivan, C. W.: see Palmisano, A. C. et al., 299

Sunda, W. G.; Tester, P. A.; Huntsman, S. A.: Effects of cupric and zinc ion activities on the survival and reproduction of marine copepods 203

Sykes, P. F.; Huntley, M. E.: Acute physiological reactions of Calanus pacificus to selected dinoflagellates: direct observations 19

Talbot, V.: Relationship between lead concentrations in seawater and in the mussel *Mytilus edulis*: a water-quality criterion 557

Tester, P. A.: see Sunda, W. G. et al., 203
Thomas, T. E.; Turpin, D. H.; Harrison, P. J.: Desiccation enhanced nitrogen uptake rates in intertidal seaweeds 293

Tomascik, T.; Sander, F.: Effects of eutrophication on reef-building corals. II. Structure of scleractinian coral communities on fringing reefs, Barbados, West Indies 53

Tomascik, T.; Sander, F.: Effects of eutrophication on reef-building corals. III. Reproduction of the reef-building coral Porites porites 77

Turpin, D. H.: see Thomas, T. E. et al., 293

Vacelet, J.: see Amade, P. et al., 271

Viarengo, A.; Moore, M. N.; Mancinelli, G.; Mazzucotelli, A.; Pipe, R. K.; Farrar, S. V.: Metallothioneins and lysosomes in metal toxicity and accumulation in marine mussels: the effect of cadmium in the presence and absence of phenanthrene 251 Viner, A. B.: see Williams, W. M. et al., 531

Wear, R. G.: see Haddon, M. et al., 25

Williams, D. F.: see Romanek, C. S. et al., 385

Williams, W. M.; Viner, A. B.; Broughton, W. J.: Nitrogen fixation (acetylene reduction) associated with the living coral Acropora variabilis 531

Willis, B. L.: see Oliver, J. K., 521

Wishner, K. F.; Gowing, M. M.: In situ filtering and ingestion rates of deep-sea benthic boundary-layer zooplankton in the Santa Catalina Basin 357

Wolk, M.: see Fitt, W. K. et al., 415

Zavodnik, D.: Spatial aggregations of the swarming jellyfish Pelagia noctiluca (Scyphozoa) 265
Zebe, E.: see Schiedek, D., 31

Indexed in Current Contents